[0039]

METHOD AND APPARATUS FOR PARTITIONING MEMORY IN A TELECOMMUNICATION DEVICE

ABSTRACT

An apparatus and method are disclosed for partitioning and downloading executable memory images in low-powered computing devices comprised of multiple processors and a mobile station modem. The general computing subsystem 102 handles tasks generally related to a personal digital assistant (PDA) as well as activating the modem computer subsystem 104 and one or more shared memory modules 108-110. The modem computing subsystem 104 handles tasks associated with a mobile station modem. Power is conserved by not clocking the modem computer system 104 and the shared memory 108-110 during times when modem functions are not needed. The shared memory modules 108-110 are loaded with a binary memory image for use by the modem computer subsystem 104 from a memory 222 under control of the general computing subsystem 102. When needed, the modem computing subsystem 104 is activated to monitor a paging channel, and disabled when it is no longer desired to monitor the paging channel. Additionally, a second shared memory 110 may be activated and used only when the modem computing system 104 needs to manage a traffic channel.